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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/042,231

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Masaki Nakano

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FITZPATRICK CELLA HARPER & SCINTO
30 ROCKEFELLER PLAZA
NEW YORK, NY 10112

EXAMINER

RICHER, AARON M

ART UNIT

PAPER NUMBER

2628

MAIL DATE

DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/042,231	Applicant(s) NAKANO, MASAKI	
	Examiner AARON M. RICHER	Art Unit 2628	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 August 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 15-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 15-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>20080820</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments, see remarks, filed August 20, 2008, with respect to the rejection(s) of claim(s) 1 and 15-20 under 35 USC 103 have been fully considered and are persuasive. Examiner acknowledges the translation of the foreign priority papers filed on August 20, 2008 and also acknowledges that the priority date of the application is earlier than the publication date of the Suga reference. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Vaske.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 15-17, 19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vaske (U.S. Patent 5,978,042).

4. As to claims 1, 19, and 20, Vaske discloses an image processing apparatus comprising:

resolution converting means for converting an image into a reduced image (col. 3, lines 7-30; an image is converted to a PIP image, which is clearly a reduced resolution when compared with the main image)

multiscreen synthesis means for composing one screen by arranging plural images in the one screen (col. 3, lines 7-30; a PIP image and a main image co-exist on the same screen);

image quality adjustment value storage means for storing image quality adjustment values for plural kinds of image quality adjustment processes (p. 11, section 0068);

image quality adjustment process means for executing the image quality adjustment processes for plural images on the basis of the image quality adjustment values stored in said image quality adjustment value storage means (col. 3, lines 21-63; different parameters are stored and applied to the auxiliary and main images; col. 3, line 64-col. 4, line 23 describe a number of different auxiliary images displayed, each with different parameters); and

control means for converting an input image into a first image to which an image quality adjustment process is executed by said image quality adjustment process means on the basis of an image quality adjustment value which is determined in advance before performing an image quality adjustment operation stored in said image quality adjustment value storage means (col. 3, lines 21-63; parameters to be applied are stored in memory and then applied), and similarly for converting the input image into a second image to which an image quality adjustment process is executed by said image quality adjustment means on the basis of an image quality adjustment value for newly performing an adjustment operation, and then for displaying the converted first and second images and a pre-conversion third image on one screen with an arranged

Art Unit: 2628

state by said multiscreen synthesis means (col. 3, line 64-col. 4, line 23; the multiple auxiliary images are displayed along with the pre-conversion main image),

wherein the image quality adjustment value which is determined in advance is a value which is not updated in the adjustment operation (col. 3, lines 21-63; parameters are pre-determined and stored in memory; the parameters are applied but the parameters themselves are not changed in this operation).

Claims 1, 19, and 20 further recite a resolution converting means that executes after a quality adjustment operation. The Vaske reference does disclose both of these steps, but does not expressly specify that resolution conversion takes place after an adjustment operation. The reference differs from the claimed invention only in order of operations. *In re Burhans* 154 F.2d 690, 69 USPQ 330 (CCPA 1946) holds that selection of any order of performing process steps is *prima facie* obvious in the absence of new or unexpected results (See MPEP 2144.04). Applicant's disclosure appears to disclose both embodiments in which resolution adjustment occurs first (fig. 1-fig. 7; also see embodiments 1-4 described) and also embodiments in which resolution adjustment occurs after quality adjustment (see p. 21; the blocks can be "mutually replaced").

Applicant does not disclose any new or unexpected results from performing quality adjustment first, and in fact seems to disclose that performing resolution adjustment first is preferred, since that is the subject described in detail in the first four embodiments.

Absent any new and unexpected results from performing quality adjustment first, examiner can conclude that just as in *In re Burhans*, the rearrangement of steps is

Art Unit: 2628

prima facie obvious. Thus it would have been *prima facie* obvious to one skilled in the art to modify Vaske to adjust quality before resolution, as in the claimed invention.

Vaske further discloses an apparatus wherein said control means can display multiple images with respective sizes different from each other (col. 3, lines 21-63; a main image is large, while an auxiliary image is PIP and therefore smaller).

5. As to claim 15, Vaske discloses an apparatus further comprising image reduction means for reducing the input image, wherein said multiscreen synthesis means composes the one screen by arranging the plural images reduced by said reduction means (col. 3, line 64-col. 4, line 23; multiple auxiliary images are displayed and thus means for arranging are inherent to the invention).

6. As to claim 16, Vaske discloses an apparatus further comprising trimming means for trimming a part of the input image, wherein said multiscreen synthesis means composes the one screen by arranging the plural images trimmed by said trimming means (col. 1, lines 35-39; the auxiliary image can be the same as "part" of the main image; if the auxiliary image only represents "part" of an image, it must somehow be trimmed by trimming means).

7. As to claim 17, Vaske discloses an apparatus wherein the image quality adjustment value which is determined in advance before performing the image quality adjustment operation is a value which was previously set at a time of manufacturing of said apparatus (col. 3, lines 59-63).

8. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Vaske in view of Richards (U.S. Patent 5,247,358) and Usami (U.S. Patent 5,748,342).

Art Unit: 2628

9. As to claim 18, Vaske discloses an apparatus wherein the image quality adjustment values are parameter values of a picture, but Vaske does not disclose specifically what these values are. Richards, however, discloses a display apparatus with an image parameter adjustment system (col. 2, lines 40-68) that includes luminance/brightness adjustment (col. 3, lines 1-11; this a substitute for lightness adjustment), a contrast adjustment (col. 4, lines 23-36), and a sharpness adjustment (col. 8, lines 21-25). The motivation for these adjustments is to accurately represent pictures by fully utilizing the dynamic range of the display (col. 1, lines 43-54). It would have been obvious to one skilled in the art to modify Vaske to adjust lightness, contrast, and sharpness in order to accurately reproduce images as taught by Richards.

Neither Vaske nor Richards discloses adjustment of chromaticity, hue, RGB balance, color temperature, and gamma characteristics. Usami, however, discloses a display apparatus with an image parameter adjustment system including adjustment of hue, chromaticity, color balance, color temperature, and gamma characteristics (col. 10, lines 14-32; col. 10, lines 41-52). The motivation for adjusting these values is to allow preview of a printed image (col. 5, lines 19-41). It would have been obvious to one skilled in the art to modify Vaske to adjust chromaticity, hue, RGB balance, color temperature, and gamma characteristics in order to preview a printed image as taught by Usami.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to AARON M. RICHER whose telephone number is

Art Unit: 2628

(571)272-7790. The examiner can normally be reached on weekdays from 8:30AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kee Tung can be reached on (571) 272-7794. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Aaron M Richer/
Examiner, Art Unit 2628
12/3/08